

What is claimed is:

1. An outside-LAN (Local Area Network) connectable IP (Internet Protocol) key telephone system, comprising:

a key telephone system main unit, configured to  
5 accommodate a plurality of IP extension terminal units, for switching calls with outside lines; and

a key telephone system terminal unit, disposed outside the LAN, for accessing the key telephone system main unit through an IP network and for functioning as an IP  
10 extension terminal unit,

wherein said key telephone system terminal unit comprises:

log-in means for logging in to an IP address of the key telephone system main unit with predetermined first ID  
15 and password, and

wherein said key telephone system main unit comprises:

means for authenticating the first ID and password received from the key telephone system terminal unit, registering the key telephone system terminal unit as an IP  
20 extension terminal unit, and allowing the key telephone system terminal unit to voice communicate with another IP extension terminal unit in accordance with the Voice over Internet Protocol (VoIP).

2. The outside-LAN connectable IP key telephone  
25 system as set forth in claim 1,

wherein said key telephone system main unit further comprises:

a database for storing a telephone directory list of users of the extension terminal units, the telephone directory list including presence information which represents whether or not each of the extension terminal units is able to perform an extension call to the other extension terminal units, and

wherein the presence information of the key telephone system terminal unit registered as an IP extension terminal unit is turned on.

10           3. The outside-LAN connectable IP key telephone system as set forth in claim 1,

wherein said key telephone system terminal unit registered as an IP extension terminal unit with the key telephone system main unit comprises:

15           log-on means for logging on to the key telephone system main unit with predetermined second ID and password, and

means for displaying a portal site for accessing information stored in a database of the key telephone system main unit, when the log-on means has logged on to the key telephone system terminal unit, and

20           wherein said key telephone system main unit further comprises:

means for authenticating the second ID and password received from the key telephone system terminal unit and permitting the key telephone system terminal unit to access information stored in the database.

4. The outside-LAN connectable IP key telephone system as set forth in claim 3,

wherein said key telephone system main unit is configured to store information including voice messages, electronic mail, and telephone directory data in the database.

5. A key telephone system terminal unit, placed outside a LAN, for accessing through an IP network a key telephone system main unit configured to accommodate a plurality of IP extension terminal units and to switch calls to outside lines, and for functioning as an IP extension terminal unit, the key telephone system terminal unit comprising:

log-in means for logging in to an IP address of the key telephone system main unit with predetermined first ID and password,

wherein said key telephone system terminal unit is configured to be authenticated by the key telephone system main unit with the first ID and password, be registered as an IP extension terminal unit, and be allowed to voice communicate with another IP extension terminal units in accordance with the VoIP.

6. The key telephone system terminal unit as set forth in claim 5,

wherein said key telephone system terminal unit which has been registered as an IP extension terminal unit with the key telephone system main unit further comprises:

log-on means for logging on to the key telephone system main unit with predetermined second ID and password; and

means for displaying a portal site for accessing  
5 information stored in a database of the key telephone system main unit, when the log-on means has logged on to the key telephone system main unit,

wherein said key telephone system terminal unit is configured to be authenticated by the key telephone system  
10 main unit with the second ID and password and to access information stored in the database of the key telephone system main unit.

7. A key telephone system main unit of an outside-LAN connectable key telephone system, configured to accommodate  
15 a plurality of IP extension terminal units, for switching calls with outside lines, the key telephone system main unit comprising:

means, accessed by a key telephone system terminal unit which is placed outside a LAN through an IP network  
20 and which functions as an IP extension terminal unit, for authenticating the key telephone system terminal unit with predetermined first ID and password, for permitting the key telephone system terminal unit to log in to the key telephone system main unit, for registering the key  
25 telephone system terminal unit as an IP extension terminal unit, and for allowing the key telephone system terminal unit to voice communicate with another IP extension

terminal units in accordance with the VoIP.

8. The key telephone system main unit as set forth in claim 7, further comprising:

means for authenticating the key telephone system  
5 terminal unit registered as an IP extension terminal unit  
with predetermined second ID and password, for permitting  
the key telephone system terminal unit to log on to the IP  
key telephone system main unit, and for permitting the key  
telephone system terminal unit to access information stored  
10 in a database of the key telephone system main unit.

9. A method for causing a key telephone system  
terminal unit placed outside a LAN to access through an IP  
network a key telephone system main unit which is  
configured to accommodate a plurality of IP extension  
15 terminal units and to switch calls with outside lines, and  
for permitting the key telephone system terminal unit to  
function as an IP extension terminal unit, comprising the  
steps of:

causing the key telephone system terminal unit to log  
20 in to an IP address of the key telephone system main unit  
with predetermined first ID and password; and

causing the key telephone system main unit to  
authenticate the key telephone system terminal unit with  
the first ID and password, register the key telephone  
25 system terminal unit as an IP extension terminal unit, and  
allow the key telephone system terminal unit to voice  
communicate with another IP extension terminal units in

accordance with the VoIP.

10. The method as set forth in claim 9, further comprising the steps of:

causing the key telephone system terminal unit  
5 registered as an IP extension terminal unit with the key telephone system main unit to log on to the key telephone system main unit with predetermined second ID and password;

causing the key telephone system main unit to authenticate the key telephone system terminal unit with  
10 the second ID and password and permit the key telephone system terminal unit to access information stored in the database; and

causing the key telephone system main unit to permit the key telephone system terminal unit to log on to the key  
15 telephone system main unit, and the key telephone system terminal unit to display a portal site for accessing information stored in the database of the key telephone system main unit.